

APPARATUS AND METHOD FOR PROVIDING MULTIPLE  
POWER SUPPLY VOLTAGES TO AN INTEGRATED CIRCUIT

## ABSTRACT OF THE DISCLOSURE

There is disclosed an apparatus and method for providing  
5 multiple power supply voltages to an integrated circuit. In an  
integrated circuit of the type comprising at least two power  
supply domains in which each power supply domain comprises at  
least one module powered by the same voltage level, the apparatus  
and method of the present invention blocks an output signal in  
10 a first power supply domain from being sent to a second power  
supply domain when the second power supply domain is in a low  
power mode. The apparatus and method of the present invention  
also blocks an output signal from a first power supply domain  
from being received in a second power supply domain when the  
15 first power supply domain is in a low power mode. Power sense  
cells are used to determine the status of power supply domains  
and logic circuits are used to block undesired signals. The  
present invention also properly synchronizes clock signals when  
power supply domains are activated or inactivated.